



# Illinois Department of Transportation

## Memorandum

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To: DIRECTORS, DEPUTY DIRECTORS, AND BUREAU CHIEFS  
From: Dianna L. Taylor  
Bureau Chief of Personnel Management  
Subject: Technical Vacancy  
Date: October 23, 2015

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Attached are the Position Summary Sheet and Position Description for the vacant technical position listed below. Please post this vacancy announcement October 26, 2015 in the designated areas.

The deadline for applicants to submit their names for consideration is **4:30 p.m.** on **Friday, November 6, 2015**. Applicants will not be accepted after that time and date.

**NOTE: Applications will be accepted from qualified permanent DOT employees only. A copy of each applicant's ACTIVE Illinois Professional Engineer License must accompany application for this position.**

All applicants will receive a position description for the position they are applying for. If you have any questions, please contact Halie Zulauf or Denise Hamilton at 217/782-5594.

CE V

Physical Tests Engineer  
Region 1/District 1/Materials  
Highways  
Schaumburg

Attachments  
40598

Technical Applications (PM 1080) **must be received** by the Bureau of Personnel Management, Room 113, 2300 South Dirksen Parkway, Springfield, IL 62764 (Fax# 217/557-3134) by **Friday, November 6, 2015, 4:30 p.m.** Please include address, daytime phone and position for which applying if not already listed on application. Applicants will be notified in writing to schedule interviews.

**NOTE: Applications will be accepted from qualified permanent DOT employees only. A copy of each applicant's ACTIVE Illinois Professional Engineer License must accompany application for this position.**



**Illinois Department  
of Transportation**

An Equal Opportunity Employer

## Position Summary Sheet

**Classification:** Civil Engineer V

**Salary Range:** \$6,315 - \$10,210

**Position Title:** Physical Tests Engineer

**Union Position:** ☒ Yes ☐ No

**Position Number:** PW115-23-51-704-00-01

**IPR#:** 40598

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### Office/Central Bureau/District/Work Address:

Highways/Region One/District One/Schaumburg/Bureau of Materials/201 W. Center Court, Schaumburg, IL

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### Description Of Duties:

This position plans, directs and coordinates the material testing and inspection activities required to ensure the acceptability of materials used on highway improvement projects with federal and state funds. It also involves material inspection for other districts, states, and government agencies.

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### Special Qualifications:

#### ***The following criteria is required:***

- Illinois Professional Engineer license
- Valid Illinois driver's license
- Statewide and overnight travel; occasional overtime

#### ***The following criteria is desired:***

- Ten years experience in civil engineering, five of which should be in highway engineering, three years of which should have been a supervisory position
- Ability to develop and maintain a cooperative work environment with staff
- Ability to resolve conflicts with aggregate producers and suppliers regarding departmental specifications and their enforcement
- Strong oral and written communication skills

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### Shift/Remarks:

8:00 am - 4:15 pm / Monday-Friday (45 minute lunch)

**\*THIS POSITION IS COVERED UNDER THE REVOLVING DOOR PROHIBITION (RDP) POLICY.**

# ILLINOIS DEPARTMENT OF TRANSPORTATION

## POSITION DESCRIPTION

<b>DATE:</b>	September 2015	<b>POSITION:</b>	Physical Tests Engineer
<b>APPROVED BY:</b>	<u>Abdul Dahhan</u>	<b>OFFICE/DIVISION:</b>	Highways/District One/Schaumburg/Bureau of Materials
<b>CODE:</b>	PW115 23-51-704-00-01	<b>REPORTS TO:</b>	<b>Bureau Chief of Materials</b>

### **Position Purpose**

This position plans, directs and coordinates the material testing and inspection activities required to ensure the acceptability of materials used on improvement projects financed with Federal and State funds.

### **Dimensions**

Subordinate Personnel:	Direct - 5; Indirect - 32
Type and Number of Producers:	Aggregate Plants - 155 Concrete Pipe Plants - 7 Prestressed Plants - 2 Producers & Suppliers - 250
Dollar Value of Materials Inspected Annually:	\$100 - \$200 Million
Number of Annual Improvement Projects:	200 - 300

### **Nature and Scope**

This position reports to the District Materials Engineer, as do the District Soils Engineer, Mixture Control Engineer and Quality Assurance Supervisor. Reporting to this position is one District Laboratory Supervisor, the Steel and Source Supervisor, the Concrete Pipe Supervisor, the District Aggregate Supervisor and the Prestressed Concrete Inspector.

Unlike other Districts throughout the State, this position is distinctive in that it has responsibility for supervision, testing and inspection of materials, processes and methods in the Chicago Metropolitan Area with deliveries throughout the State of Illinois. The incumbent also supervises the inspection of materials for 3 to 8 additional states. This responsibility requires knowledge of specifications, testing and inspection procedures of each State involved.

This position directs the inspection operation at over 155 separate and distinct aggregate producing plants. Among these plants are the largest stone quarry in the world and the largest gravel producing plant in the State. With the District being the principal source of a wide variety of products such as paints, solvents, steel products, epoxy coated material, plastic pipe and other various material, this position is responsible for recommending and evaluating the inspection and testing procedures for these resources. Finally, the existence of over 300 local governmental units and over 250 producers in the area results in a large number of special testing and inspection problems for which unique solution must frequently be developed.

Typical problems encountered include developing and obtaining approval of appropriate testing and inspection procedures for materials such as aggregates, concrete pipe, prestress units, paints, solvents, expansion and contraction devices, steel shapes and other products produced within the District produced under various programs such as AGCS and QC/QA; ensuring that the producers understand various State requirements; locate additional sources for scarce materials; evaluate the acceptability of substitute materials; develop appropriate guidelines and prepare special testing and inspection procedures for special products; establish effective relations with producers and local agencies to ensure their understanding of inspection requirements; ensure that subordinates have the technical knowledge and information to provide adequate testing and inspection of an extremely wide variety of materials. The principal challenge to this position is to ensure that inspection and testing methods provide for material acceptability and that inspection schedules are established, reviewed and revised by the incumbent to ensure inspection meets construction schedules.

The incumbent personally: coordinates and directs the subordinate staff in inspecting and testing of approximately twenty-five percent of materials used by the entire Department of Transportation as well as sizable quantities for other States which requires the incumbent to establish the proper performance parameters and work schedules; reviews the progress of work schedules in order to overcome current parameters and limitations; develops and implements special inspection and testing procedures to simplify and expedite inspection while maintaining quality standards; issues written guidelines and participates in meetings to train local agencies and producers to ensure understanding of requirements for material acceptability; resolves difficult inspection problems where modification of specifications or special provisions is required; trains subordinate personnel to ensure their technical proficiency with regard to their current assignment and their conformance to the Department's safety program is current.

The incumbent accomplishes accountabilities through the following personnel:

The District Laboratory Supervisor - who with a staff of five to eight Laboratory Technicians, one Data Input Operator and one Maintenance worker, are responsible for supervising those activities that ensure the testing, sampling and subsequent documentation of a variety of materials used in highway improvement projects throughout the State under programs such as QC/QA and Superpave.

Steel and Source Supervisor - who, with a staff of twelve Area Source Inspectors, is responsible for supervising those activities that ensure that all structural steel products, paint, conduit, guardrail, fencing, geotechnical fabric, elastomeric bearings and other products used in all aspects of the Departments road and bridge construction projects are properly tested, inspected and documented to comply with pertinent requirements and specifications.

Concrete Pipe Supervisor - who, with a staff of two pipe inspectors, is responsible for supervising those activities that ensure concrete pipe, precast structures and formed concrete structures produced in the District are in compliance with specifications and are acceptable for use in highway improvement projects not only within the District but throughout the State.

Prestress Concrete Inspector - who, with a staff of one technician, is responsible for inspection of prestress concrete products to assure compliance with specifications and ensure acceptability for use in highway improvement projects both within the District and throughout the state.

District Aggregate Supervisor - who, with a staff of four Local Area Aggregate Supervisor Technicians and four Aggregate Inspectors, is responsible for planning and directing activities to ensure that aggregate material produced through the District as well as applicable plants in Northern Indiana, Southern Michigan and Southern Wisconsin comply with the A.G.C.S. or Aggregate Manual programs for use in highway improvement projects throughout the State.

The incumbent not only operates within guidelines included in the Standard Specifications for Road and Bridge Construction, the Special Provisions, ASTM and AASHTO but is expected to develop acceptable quality standards, testing and inspection procedures to cover unusual problems that may be encountered.

This position maintains contact with the Central Bureau of Materials and Physical Research for notification of quality test status, verification of producer status and to ensure understanding and applicability of new products; as well as other Districts' Bureaus of Materials for notification and documentation of material status, Construction, Maintenance, Local Roads and Streets, Design, Electrical, Traffic, various producers, suppliers, contractors, local agencies, consultants, FHWA personnel, FAUS engineers and the public regarding the inspection and approval of materials used in highway improvement projects so as to ensure materials meet applicable specifications. The incumbent also recommends special provisions to the Central Bureau covering solutions to special inspection and testing problems that arise.

The effectiveness of this position can be measured by the acceptability of materials incorporated into highway projects, by inspection and tests which are provided in a timely manner and adequately documented and that methods and procedures utilized meet acceptable standards. The incumbent must be a Registered Professional Engineer in the State of Illinois and have a valid Illinois driver's license to be able to travel to various locations under the auspices of the Physical Tests which may include statewide and overnight travel.

### ***Principal Accountabilities***

1. Ensures that all materials used in highway projects throughout the District are correctly tested and properly documented to meet Standard Specifications, Special Provisions or acceptable quality standards.

2. Directs and coordinates efforts of subordinate staff to ensure timely inspection so as to avoid delays in project completion.
3. Provides solutions and advice on unique and specialized inspection and testing procedures on new projects.
4. Prepares special provisions with revisions to Standard Specifications to cover particular inspection and testing problems that arise.
5. Ensures proper coordination with all District Bureaus on matters of materials testing and source inspection.
6. Ensures that material supplied other States conforms to their specifications and inspection requirements.
7. Performs duties in compliance with departmental safety rules. Performs all duties in a manner conducive to the fair and equitable treatment of all employees.
8. Performs other duties as assigned.